

This listing of claims replaces all prior versions, and listings of claims in the instant application:

Listing of Claims:

1. (Original) A method for recognizing patterns, the method comprising:

a lead frame orientation detecting step of setting a first lead eye box and a first lead eye point on a gate of a lead frame through an observation hole of a clamp with a camera and setting a second lead eye box and a second lead eye point on a support bar of the lead frame located on an outer circumference of the clamp, before clamping the lead frame seated on a heater block with the clamp, and determining whether or not the lead frame is seated in an exact first position;

a lead frame indexing step of setting the first lead eye box and the first lead eye point on the gate and setting the second lead eye box and the second lead eye point on the support bar with the camera, after clamping the lead frame, and determining whether or not the lead frame is seated in the exact first position;

a Video Lead Locate step of capturing positions of leads of the lead frame and memorizing the positions; and

a die orientation detecting step of setting die eye boxes and die eye points on two specific areas of bond pads adjacent edges of a die and determining whether or not the die is mounted in an exact second position.

2. (Original) The method as claimed in claim 1, wherein, in the lead frame orientation detecting step and the lead frame indexing step, the first lead eye box and the first lead eye point set on the gate are set on one of a plated layer or a dent part formed on the gate.

3. (Original) The method as claimed in claim 1, wherein the lead frame orientation detecting step further includes a step of moving the lead frame in axes of X and Y and making a captured picture of the first lead eye box be identical with a memorized control picture completely if the captured picture is identical with the memorized control picture within a permitted range.

4. (Original) The method as claimed in claim 1, wherein the lead frame indexing step further includes a step of moving the camera in axes of X and Y and making a captured picture of the first lead eye box be identical with a memorized control picture completely if the captured picture is identical with the memorized control picture within a permitted range.

5. (Original) The method as claimed in claim 1, wherein the lead frame orientation detecting step and the lead frame indexing step, respectively, further include a step of stopping the operation and waiting for an operator's input if there is a difference between a captured picture of the first lead eye box and a memorized control picture beyond a permitted range.

6. (Previously presented) A method for recognizing patterns, the method comprising:

a lead frame orientation detecting step of sensing a hole number of a lead frame seated on a heater block and determining whether or not the lead frame is seated in an exact first position;

a first lead frame indexing step of setting a lead eye box and a lead eye point on one tie bar of the lead frame with a camera before clamping the lead frame with a clamp, and determining whether or not the lead frame is seated in the exact first position;

a second lead frame indexing step of setting lead eye boxes and lead eye points on two tie bars of the lead frame with the camera after clamping the lead frame with the clamp, and redetermining whether or not the lead frame is seated in the exact first position;

a Video Lead Locate step of capturing positions of leads of the lead frame with the camera and memorizing the positions; and

a die orientation detecting step of setting die eye boxes and die eye points on specific patterns adjacent edges of a die and located outside of bond pads of the die with the camera and determining whether or not the die is mounted in an exact second position.

7. (Canceled)

8. (Original) The method as claimed in claim 6, wherein the specific patterns are pictures, figures, characters or numbers.

9. (Original) The method as claimed in claim 6, wherein the die orientation detecting step stops the operation and waits an operator's input if the specific patterns are not located inside the die eye boxes.

10. (Previously presented) A method for recognizing patterns, the method comprising:

a lead frame orientation detecting step of setting a first lead eye box and a first lead eye point on a gate of a lead frame through an observation hole of a clamp and setting a second lead eye box and a second lead eye point on a support bar of the lead frame located on an outer circumference of the clamp with a camera, before clamping the lead frame seated on

a heater block with the clamp, and determining whether or not the lead frame is seated in an exact first position;

a lead frame indexing step of setting the first lead eye box and the first lead eye point on the gate and setting the second lead eye box and the second lead eye point on the support bar with the camera, after clamping the lead frame, and determining whether or not the lead frame is seated in the exact first position;

a Video Lead Locate step of capturing positions of leads of the lead frame and memorizing the positions; and

a die orientation detecting step of setting die eye boxes and die eye points on specific patterns adjacent edges of a die and determining whether or not the die is mounted in an exact second position.

11. (Original) The method as claimed in claim 10, wherein, in the lead frame orientation detecting step and the lead frame indexing step, the first lead eye box and the first lead eye point set on the gate are set on one of a plated layer or a dent part formed on the gate.

12. (Original) The method as claimed in claim 10, wherein the lead frame orientation detecting step further includes a step of moving the lead frame in axes of X and Y and making a captured picture inside the first lead eye box be identical with a memorized control picture completely if the captured picture is identical with the memorized control picture within a permitted range.

13. (Original) The method as claimed in claim 10, wherein the lead frame indexing step further includes a step of moving the camera in axes of X and Y and making a captured picture inside the first lead eye box be identical with a memorized control picture completely if the captured picture

is identical with the memorized control picture within a permitted range.

14. (Original) The method as claimed in claim 10, wherein the lead frame orientation detecting step and the lead frame indexing step, respectively, further include a step of stopping the operation and waiting for an operator's input if there is a difference between a captured picture of the first lead eye box and a memorized control picture beyond a permitted range.

15. (Original) The method as claimed in claim 10, wherein the die orientation detecting step sets the die eye boxes and the die eye points on the specific patterns formed in the vicinity of the edges located outside of bond pads of the die.

16. (Original) The method as claimed in claim 10, wherein the specific patterns are pictures, figures, characters or numbers.

17. (Original) The method as claimed in claim 10, wherein the die orientation detecting step stops the operation and waits for an operator's input if the specific patterns are not located inside the die eye boxes.

18-32. (Canceled)